Cancer and Screening Toolkit



What is **Cancer?**

What is **Cancer?**



Cancer is a disease that starts in our cells.

Cancer happens when cells grow differently from normal cells and at a faster speed.

Cancer is diagnosed in a lab, where cells are examined under a microscope to determine whether they are normal or abnormal.



What is **Cancer?**



Normal Cells

Cancer Cells

Uncontrolled cell growth spreads cancer throughout the body and damages surrounding tissues.

What is **Cancer Screening?**

What is Cancer Screening?

The goal of cancer screening is to find the cancer early or to detect pre-cancer before you have symptoms and before it has a chance to grow.

When cancer is found early, it may be easier to treat and treatment is more effective.

It is important to talk to your health care provider about cancer screening.

Getting screened regularly can lead to healthier lives for you, your family, and your community.

Medical transportation benefits may be provided by Non-Insured Health Benefits (NIHB) for clients who are travelling to participate in cancer screening programs done outside of the community.

There are currently 4 Provincial Screening Programs in Ontario:

Ontario Cervical Screening Program (OCSP)

Ontario Breast Screening Program (OBSP)

ColonCancerCheck (CCC)

Ontario Lung Screening Program (OLSP)

Organized screening programs may find cancer earlier, leading to better health outcomes.

Screening is for people who do not have any cancer symptoms.

What is Cancer Screenings

What is Cancer Screening?

Cervical Screening

Cervical Screening

Screening

The Ontario Cervical Screening Program recommends that people should get screened if they:

- Are at least 25 years old
- Are a woman, Two-Spirit person, transmasculine person or nonbinary person with a cervix
- Have ever had sexual contact with another person
- Do not have symptoms of cervical cancer, like different bleeding or discharge (clear or yellow fluid) from the vagina (genital opening)

Most people who qualify for cervical screening should get screened every 5 years, and can stop cervical screening after a negative screening test between ages 65 to 69. A person's health care provider can help them decide if they need to be screened after age 69.



The Ontario Cervical Screening Program sends letters to people who qualify inviting them for a cervical screening test, telling them their test results and next steps after the test, and reminding them when to get screened again.

Cervical Screening

Cervical Screening

Where is the **Cervix**?



The cervix is a body part that connects the uterus (womb) to the vagina (genital opening).



The uterus is where babies are carried during pregnancy.

Where is the **Cervix**?



Facts about the Human Papillomavirus (HPV)

Facts about the Human Papillomavirus (HPV)

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Cervical cancer is almost always caused by human papillomavirus (HPV).

HPV is a virus that is passed from one person to another through sexual contact. Sexual contact includes when someone has contact with another person's genitals (private parts). This contact can be with the hands, mouth or genitals. HPV is common and will often go away on its own without doing any harm.

There are more than 100 types of HPV and they can cause changes to the cells of the cervix. With **some** types of HPV, these cell changes can turn into cervical cancer over time if they are not treated.

Facts about the Human Papillomavirus (HPV)



Chesson, H. W., Dunne, E. F., Hariri, S., & Markowitz, L. E. (2014). The estimated lifetime probability of acquiring human papillomavirus in the United States. Sexually transmitted diseases, 41(11), 660-664.

What is the **Cervical Screening Test?**

About the Test

The cervical screening test checks for types of human papillomavirus (HPV) that can sometimes cause cervical cancer. It also checks for cell changes in the cervix caused by these types of HPV. The test does **not** check for other types of HPV.

The cervical screening test feels like getting a Pap test. A health care provider will use a small, soft brush to take cells from the cervix so the lab can test the cells for types of HPV and cell changes. The person doing your test can try to make the test as comfortable as possible for you.

The sample is sent to a lab where the cells are tested for types of HPV and cell changes.



Regular screening with the cervical screening test is the best way to lower your chance of getting cervical cancer.

Be sure to go for regular cervical screening tests and for more testing after an abnormal test result, if needed.



What is the **Cervical Screening Test?**



Symptoms of **Cervical Cancer**

Symptoms

- Bleeding between periods or after sex
- Pelvic pain while resting or during sex
- Changes in vaginal discharge or smell; discharge could be watery or red
- Vaginal bleeding for long periods of time; bleeding for more than 2 weeks should be looked at
- If you have any vaginal bleeding when you are menopausal (i.e., when your monthly periods stop), see your health care provider

Symptoms of Cervical Cancer



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Symptoms of **Cervical Cancer**



Human Papillomavirus (HPV) Vaccine

HPV Vaccine The HPV vaccine is a safe and effective way to protect against HPV infections.

The human papillomavirus (HPV) vaccine is a safe and effective way to protect against HPV infections.

HPV vaccination is strongly recommended for all people 9-26 years of age. People 27 years of age and older may also benefit from being vaccinated for HPV and should talk with their health care provider to see if vaccination is right for them.

In the past, it was recommended that only girls and women be vaccinated, but the research has changed, and it is now recommended that all children be vaccinated.



If you have questions about whether the HPV vaccine is right for you, talk to your health care provider, sexual health clinic, or a public health unit.

Even after you receive an HPV vaccine you still need regular cervical screening tests, as recommended by your health care provider.

Human Papillomavirus (HPV) Vaccine



Breast Screening



The Ontario Breast Screening Program (OBSP) is a province-wide organized screening program that aims to reduce breast cancer deaths through regular screening for women, Two-Spirit people, trans people and nonbinary people ages 40 to 74.

The OBSP screens two different groups of people: those at average risk and those at high risk.



Average risk ages 40 to 74

- Most people in this age group who qualify for the OBSP can get a mammogram every 2 years.
- People ages 40 to 49 are encouraged to make an informed decision about whether screening is right for them, as occurrence varies by Indigenous identity. Generally, people in this age group have a lower chance of getting breast cancer than people ages 50 to 74. People can talk to their health care provider or call Health811 for help deciding whether to get screened.

High risk ages 30 to 69

- People may qualify for the High Risk OBSP if they are age 30 to 69 and have certain gene changes, a higher chance of getting breast cancer based on their family or personal health history, or had radiation therapy to the chest.
- People in this group are screened once a year with mammogram and magnetic resonance imaging (MRI).

Potential benefits

Screening can find breast cancer early, which may mean that:

- Treatment has a better chance of working
- Fewer treatments may be needed and the treatments may be less invasive or intensive (easier to handle)
- The chance of dying from breast cancer is lower

Potential harms

- False-negative: Missing a cancer on a screening mammogram, which could lead to delayed treatment.
- **False-positive:** Getting an abnormal result when there is no cancer present. It can lead to extra testing, like a biopsy (taking a small sample of tissue), that can cause anxiety and stress for some people.
- **Overdiagnosis:** Finding a cancer that would not otherwise cause health problems, that may lead to unneeded surgery or treatment.

Canadian Task Force on Preventive Health Care. (2011). Recommendations on screening for breast cancer in average-risk women aged 40–74 years. Cmaj, 183(17), 1991-2001.

Wilkinson, A. N., Ng, C., Ellison, L. F., & Seely, J. M. (2024). Breast cancer incidence and mortality, by age, stage and molecular subtypes, by race/ethnicity in Canada. The Oncologist, oyae283.

Breast Screening

Breast Screening

Breast Screening Tests

Breast Screening Tests



Types of Tests

There are different tests to help find breast cancer. The type of test depends on your risk level.

Mammogram

The most common breast cancer screening test is a mammogram. Mammograms are safe and use a low dose x-ray to take images of the breasts.

What happens during a mammogram?

- A technologist specializing in mammography will place your breast on a special x-ray machine.
- A plastic plate will be lowered down to slowly flatten the tissue and hold it in place for a few seconds while the picture is taken. You will feel some pressure, but it will only last for a few seconds.
- There will be two pictures taken of each breast. The appointment will only take about fifteen minutes from start to finish.

Mammograms are safe, free and you do not need an order from a health care provider to get one.

Breast magnetic resonance imaging (MRI) (high risk people only)

- Breast MRI uses radio waves and a magnetic field to make images that can be viewed on a computer.
- Most people getting breast MRIs need to get dye put into their arm through an intravenous (IV) line as part of the test.
- During a breast MRI, people are asked to lie on their stomach.
- Appointments usually take 20 to 60 minutes.

Breast Screening Tests



Mammogram

X-rays of the breast.



MRI

Uses radio waves and a magnetic field to create cross-sectional images of the breast.

What happens after you get a mammogram?

A specialist doctor will look at the pictures for unusual tissue in the breasts.

If you have a **normal result**, you will receive a letter in the mail. This letter will also let you know when you should get screened again and include breast density information.



If you have an **abnormal result**, the Ontario Breast Screening Program site will notify your health care provider and may also help to schedule a follow-up appointment. If you do not have a health care provider, you will be assigned to one that can help with follow-up. Getting an abnormal result does not necessarily mean you have breast cancer, but it does mean you need to get more tests.

Size of Breast Lumps

Nine out of ten people who have an abnormal result will **not** have breast cancer.

Ho, T. Q. H., Bissell, M. C., Kerlikowske, K., Hubbard, R. A., Sprague, B. L., Lee, C. I., ... & Miglioretti, D. L. (2022). Cumulative probability of false-positive results after 10 years of screening with digital breast tomosynthesis vs digital mammography. JAMA network open, 5(3), e222440-e222440.

Size of **Breast Lumps**

The Thing-A-Ma-Boob shows average size lump found by:



Stages of Breast Cancer

 Stages of Breast Cancer

 Image: Stage 1

 Stage 1

 Stage 2

 Stage 3

This is what breast cancer looks like.

Regular breast cancer screening can find cancer early, when it may be smaller and easier to treat.

Risk factors you cannot change or control:

- Age
- Genetics
- Breast density

- Hormone changes
 throughout life
- Family history

 A breast is considered dense when it has a lot of fibroglandular tissue (tissue that keeps the breast in place and helps make and carry milk to the nipple).
 Having some dense tissue is normal and very common.

Risk factors you can change or control:

- Commercial tobacco use
- Alcohol use

- Healthy eating
- Physical activity
- Adult weight gain

Stages

There are 4 stages of breast cancer.



Stage 4 cancer is the most advanced form of cancer and is often the most difficult to treat.



Be Breast Aware



Look for Changes

Know how your breasts normally look and feel so that you are more likely to notice any unusual changes.

Symptoms of Breast Cancer

- Lumps or thickening in the breast
- Fluid leaking from the nipple
- Redness
- Dimpling or puckering
- Skin change or change in breast size or shape
- Nipple change

See your health care provider right away if you have these symptoms.



Be Breast Aware



Colon Screening

Colon Screening

About the Program

ColonCancerCheck is a program which encourages people to get checked and reduce their chances of dying from colon cancer. The ColonCancerCheck program checks two different groups of people: those at average risk and those at increased risk.

If you are between the ages 50 to 74 without a parent, sibling or child who has been diagnosed with colon cancer, you are at average risk.

If you have a parent, sibling or child who has been diagnosed with colon cancer, you are at increased risk.

Benefits of Screening:

- Getting screened regularly leads to healthier lives for you, your family and your community
- 9 out of 10 people can be cured if colon cancer is caught early

Screening People at Average Risk

If you are at average risk of getting colon cancer and have no symptoms, it is recommended that you get checked with the fecal immunochemical test (FIT) every two years.

Screening People at Increased Risk

If you are at increased risk of getting colon cancer and have no symptoms, it is recommended that you get checked with a colonoscopy. A colonoscopy is an exam in which a doctor looks at the lining of the entire colon using a long, flexible tube with a tiny camera on the end.

Cancer Care Ontario. (2025). Colorectal Cancer. <u>https://www.cancercareontario.ca/en/types-of-cancer/colorectal</u>

Colon Screening

The Fecal Immunochemical Test (FIT)

What it is

The fecal immunochemical test (FIT) checks someone's stool (poop) for tiny drops of blood which could be caused by colon cancer and/or pre-cancerous polyps (growths in the colon or rectum that can turn into cancer over time).



FIT is a safe and painless test that can be done at home and only takes a few minutes.

Eligible participants can order a FIT kit through their health care provider, mobile screening coach, health centre or nursing station. Those without a health care provider can order a FIT kit by contacting Health811.

The $\ensuremath{\textit{FIT}}$ (Fecal Immunochemical Test) $\ensuremath{\textit{Kit}}$



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The Fecal Immunochemical Test (FIT) Kit



How to Complete the Fecal Immunochemical Test (FIT)

How to Complete the $\ensuremath{\mathsf{FIT}}$







* Review the steps on how to complete the fecal immunochemical test (FIT) using the instruction sheet and refer to the pictures.

There are no medications or dietary restrictions, including no restrictions on vitamin C.

When completing a FIT, one sample of stool (poop) must be collected. After collection, the FIT should be mailed or dropped off as soon as possible – ideally within two days – to ensure it arrives within 14 days of specimen collection.

Patients who live in a First Nations community can contact their health centre or nursing station to discuss drop-off options.

How to Complete the Fecal Immunochemical Test (FIT)



Your Digestive Tract



Your Digestive Tract



Colon

How it Works

Food, water and nutrients pass from your mouth, through the esophagus, into your stomach and then into the small and large intestine. The large intestine is also known as the colon.

Waste passes out of the body through the colon.



Colon cancer is cancer of the large bowel (colon), which is the lower part of the digestive system. Rectal cancer is cancer of the last six inches of the colon. Together, they are called colorectal cancer (or bowel cancer).



Stages of Colon Cancer

Stages

There are 4 stages of colon cancer:



The cancer cells have spread beyond the innermost layer of the colon wall and possibly into the muscle layer of the colon.



Cancer cells have spread beyond the muscle layer of the colon, either to the outermost layer of the colon wall, or to tissues or organs located close to the bowel. However, the tumor has not spread to the nearby lymph nodes.



The cancer cells have spread beyond the innermost layer of the colon and into the nearby lymph nodes.



The cancer cells have spread to other remote parts of the body. Stage 4 cancer is the most advanced form of cancer and is often the most difficult to treat. Colon cancer can grow slowly in the body for many years before it causes any symptoms.



The cancer can cause bleeding, which can cause anemia (a drop in your red blood cell count) due to low iron. As the cancer gets bigger, it may block the passage of stool (poop) which can cause bloating and cramps or constipation.

Stages of Colon Cancer

See your health care provider if you have symptoms.

Stages of **Colon Cancer**



Colon Cancer Symptoms and Isssues

Symptoms and Issues

- Blood in stool
- New and persistent:
 - Constipation
 - Diarrhea
 - Stomach discomfort
- Feeling that your bowel does not empty all the way
- Unexplained weight loss
- Anemia (drop in red blood cell count) that is caused
 by low iron





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Colon Cancer Symptoms and Issues



Family History of Colon Cancer



What is Family History of Colon Cancer?



Family history is when a parent, sibling or child has been diagnosed with cancer.

When you have a family history of cancer you are at increased risk of developing colon cancer.

People who have no symptoms and are at increased risk of getting colon cancer should get screened with a colonoscopy.

Someone at increased risk should start screening at age 50, or 10 years before the age their relative was diagnosed with colon cancer, whichever comes first.

If your parent was diagnosed with colon cancer at age 54, you should start screening for colon cancer at age 44.



However, if your parent was diagnosed at age 70, you still start screening at age 50, not age 60.

Family History of Colon Cancer



What is a **Colonoscopy**?

What is a Colonoscopy?

What is it?

A colonoscopy is an exam in which a doctor looks at the lining of the entire colon using a long, flexible tube with a tiny camera on the end.

Individuals at increased risk and individuals who have an abnormal fecal immunochemical test (FIT) result should get a colonoscopy to check for colon cancer.

An abnormal FIT result does not necessarily mean that you have colon cancer but it does mean that additional testing is needed. You should have a colonoscopy within eight weeks of an abnormal FIT result.

Before your Colonoscopy

You must prepare for the procedure the day before by drinking a laxative preparation (bowel preparation). This will ensure your colon is completely empty and clean so everything can be seen during the procedure and nothing gets missed.

Before your colonoscopy, you will receive instructions about what laxative to take, any medications you should stop taking, and what you can eat and drink.

What is a **Colonoscopy**?





Polyps in the Colon



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During your Colonoscopy

A colonoscopy is safe and it usually takes less than thirty minutes. You can get medication to make you feel comfortable during the colonoscopy.



During the colonoscopy, the doctor can also take biopsies (samples of tissues) and remove polyps (small growths that form inside the colon or rectum). You will not feel any pain when the polyps are removed.

Any tissue (biopsy or polyp) that is removed is sent to the lab where it is tested for cancer cells.

After your Colonoscopy

The doctor doing the colonoscopy will give you your test results and tell you about next steps, including the need for more tests and/or treatment.

If you have had polyps removed, you may need a colonoscopy again in the future, depending on the size, and type of polyps found during your first colonoscopy.

Almost all polyps removed are **not** cancerous.

Polyps in the Colon



Lung Screening





Lung cancer screening is recommended for people at high risk for lung cancer who do not have symptoms of lung cancer.

People may qualify for lung cancer screening if they:

- Are age 55 to 80; and
- Have smoked cigarettes every day for at least 20 years it does not have to be 20 years in a row, which means there could be times when you did not smoke.

People should talk to their health care provider about being referred to an Ontario Lung Screening Program (OLSP) location.

People can also contact an OLSP location directly by visiting <u>ontariohealth.ca/</u> <u>lungscreeninglocations</u> or calling 1-866-662-9233 to get the names of OLSP locations they can contact.

Lung Screening

Lung Screening

Qualifying for Lung Screening

Qualifying



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When someone is referred to, or contacts, an Ontario Lung Screening Program (OLSP) location, the location will call them to learn more about their risk of getting lung cancer and ask questions about their health and smoking history.



Based on their answers to these questions, the OLSP site will let them know if they qualify for lung cancer screening.

Not everyone who is referred to the OLSP will qualify to get screened.

Qualifying for Lung Screening



What if Someone **Does Not** Qualify for Lung Screening?

What if Someone Does Not Qualify?





Someone's risk of developing lung cancer can change over time. If an Ontario Lung Screening Program (OLSP) location tells someone that they do not qualify for screening, they should check again in 3 years to see if they qualify. They should reach out to their health care provider or contact the OLSP location to see if they should get checked again sooner if they have:

- Started smoking again (if they had quit)
- Been told they have chronic obstructive pulmonary disease (COPD)
- A new family history of lung cancer

What if Someone **Does Not Qualify for Lung Screening?**

Someone's risk of developing lung cancer can change over time.

Lung Screening Test

About the Test

If someone qualifies for lung cancer screening, they will be offered an appointment for a type of computed tomography (CT) scan that uses a small amount of radiation. This test is called a low-dose CT scan.



During the scan, people lie on an open table that passes through a large donutshaped machine, called a scanner. The scanner uses a small amount of radiation to take detailed pictures of the lungs. The

test only takes a few minutes and is not painful. There are no medications or needles given during the test.

Low-dose CT scans look for lung nodules, which are spots on someone's lungs.

Lung Screening Test

Nodules are small lumps of tissue.

Many people have nodules. Nodules can be caused by cancer, infections, scar tissue or other conditions. Most nodules are **not** cancer.

Lung Screening Test



What is **Lung Cancer?**

Lung cancer is cancer that is found in the lungs. It starts when abnormal cells grow in an uncontrolled way in the lungs.



Lung cancer is the most common cancer among First Nations people in Ontario, Métis people in Canada, and Inuit in Inuit Nunangat. In the past, most people with lung cancer died because their cancer was found late, when treatment may not work as well.

What is Lung Cancer?

Now there is an effective way to screen (check) people for lung cancer so it can be found early, when treatment has a better chance of working.

Carrière GM, Tjepkema M, Pennock J, Goedhuis N. Cancer patterns in Inuit Nunangat: 1998-2007. Int J Circumpolar Health. 2012 May 15;71:18581.

Chiefs of Ontario, Cancer Care Ontario and Institute for Clinical Evaluative Sciences. Cancer in First Nations People in Ontario: Incidence, Mortality, Survival and Prevalence. Toronto, 2017.

Mazereeuw MV, Withrow DR, Nishri ED, Tjepkema M, Vides E, Marrett LD. Cancer incidence and survival among Métis adults in Canada: results from the Canadian census follow-up cohort (1992–2009). CMAJ Can Med Assoc J [Internet]. 2018 Mar 19 [cited 2025 Jan 24];190(11):E320–6.

What is **Lung Cancer?**



Lung cancer is cancer that is found in the lungs. It starts when abnormal cells grow in an uncontrolled way in the lungs.

Lung Cancer Symptoms

Lung Cancer Symptoms

Symptoms and Issues

- A new cough that doesn't go away or gets worse
- Chest pain that is often worse when someone breathes deeply, coughs or laughs
- A hoarse (scratchy-sounding) voice
- Not hungry and/or lose weight for no reason
- Coughing up blood, or rust-coloured spit or phlegm
- Shortness of breath (get out of breath easily and have trouble catching your breath)
- Infections, such as bronchitis and pneumonia, that do not go away or keep coming back
- Wheezing (a whistling or rattling sound when you breathe)
- Abnormal blood tests

See your health care provider if you have symptoms of lung cancer.





Lung Cancer Symptoms



Smoking Cessation



Quitting Smoking

Traditional tobacco is used in many different ceremonies for spiritual purposes. It does not have the same connection to disease as commercial tobacco.



Quitting smoking is one of the best things a person can do to improve their overall health, including reducing their chance of getting cancer.

Quitting can be hard, but it is possible, and someone is more likely to quit if they get help.

If someone currently smokes and comes to one of the Ontario Lung Screening Program (OLSP) locations, they will be offered free services to help them quit smoking.

Indigenous Tobacco Program

The Indigenous Tobacco Program (ITP) works directly with First Nations, Inuit, Métis and urban Indigenous communities and organizations to provide commercial tobacco, cannabis and vaping prevention and cessation workshops. The ITP also works to address chronic disease more broadly (i.e., healthy eating, physical activity, managing stress).



For more information on the ITP or on how to quit smoking, please visit: **TobaccoWise.com**

People can also contact the following services directly for help to quit smoking:

- Talk Tobacco: by dialing 1-833-998-TALK (8255) or visiting <u>TalkTobacco.ca</u>
- Health811: by dialing 811 (TTY: 1-866-797-0007)

Smoking **Cessation**



Cancer Treatment



Most people who are screened for cancer do not show any signs of cancer and do not need to do anything other than continue to follow the screening schedule.

For some people, screening will lead to a cancer diagnosis. The good news is that screening can catch cancer earlier when treatments may work better.

There are many different treatments for cancer and more are being studied. Some people may have more than one type of treatment to best treat their cancer.

Some common treatments for cancer are:

- Chemotherapy (medicine that destroys cancer cells)
- Radiation therapy (using high doses of radiation to destroy cancer cells)
- Immunotherapy (medicine that helps your own immune system to destroy cancer cells)
- Surgery (an operation to remove some or all of the cancer)

The type of treatment that would be recommended for you would consider:

- Where in your body the cancer is found
- The stage of your cancer (how far it has spread)
- Your goals and choices for your treatment
- The recommendations made by your health care team

Cancer Treatment

Cancer Treatment

Cancer **Prevention**

Cancer Prevention

Cancer Prevention

Healthy behaviours can potentially prolong someone's lifespan.

Different types of cancers (including other types of cancer that we do not screen for) have some common risk factors such as commercial tobacco use, alcohol consumption, physical inactivity and unhealthy eating.

Healthy behaviour changes have had a noticeable impact on reducing cancer rates.

Protective Factors





Cancer Prevention









Ontario Health is the provincial agency responsible for ensuring Ontarians continue to receive high-quality health care services where and when they need them. The Indigenous Health Unit, within Ontario Health (Cancer Care Ontario), is accountable for implementing the First Nations, Inuit, Métis and Urban Indigenous Cancer Strategies. This resource has been adapted from the initial "Screening Toolkit" resource created by Prevention and Screening Services at Thunder Bay Regional Health Sciences Centre, in partnership with Wequedong Lodge, Ontario Health (Cancer Care Ontario), and Northwestern Ontario partners.

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> **Need this information in an accessible format?** 1-877-280-8538, TTY 1-800-855-0511, <u>info@ontariohealth.ca</u> Document disponible en français en contactant <u>info@ontariohealth.ca</u>